

Railroads: Moving America Safely

ASSOCIATION OF AMERICAN RAILROADS

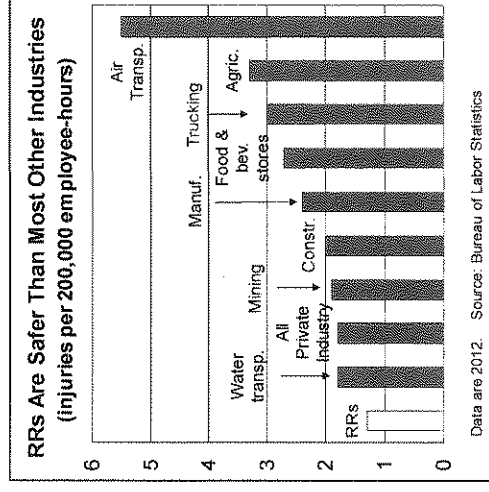
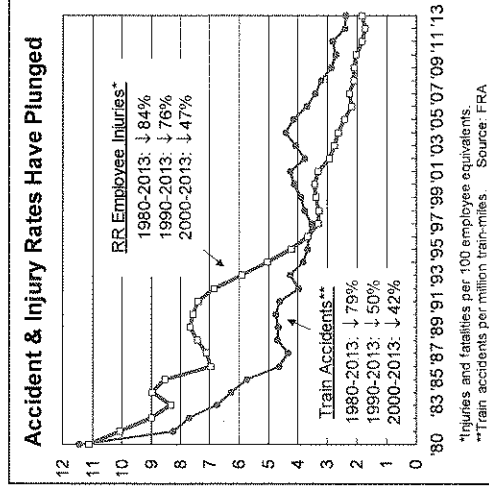
MAY 2014

Summary

No matter what commodity railroads are hauling, nothing is more important than safety. Freight railroading is a safe industry now, but railroads are always looking for ways to make tomorrow safer than today. The rail industry's commitment to safety is reflected in safety statistics from the Federal Railroad Administration (FRA). Based on the three most common safety measures used by the FRA — train accident rates, employee injury rates, and grade crossing collision rates — railroads had their safest years ever in 2012 and 2013. Railroads are proud of their safety improvements, but they know that the safety challenge never ends. Working together with their employees, suppliers, customers, and officials at the FRA and elsewhere in government, railroads are constantly developing and implementing new technologies and operating practices to further improve rail safety.

Railroads Are A Safe Way to Move Freight

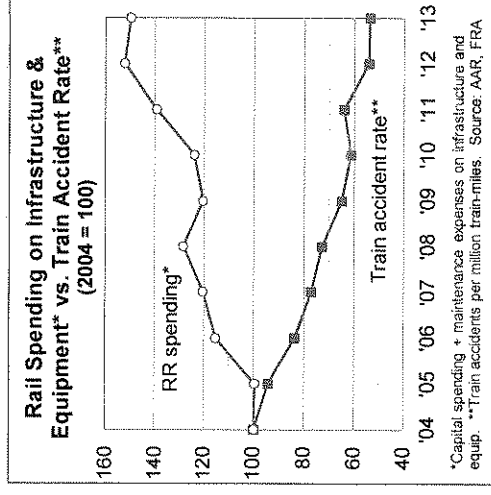
- Nothing is more important to railroads than safety, and **the industry's commitment to safety is reflected in safety statistics from the Federal Railroad Administration (FRA)**. From 1980 through 2013, the train accident rate fell 79 percent; the employee injury rate fell 84 percent; and the grade crossing collision rate fell 81 percent. Since 2000, the declines have been 42 percent, 47 percent, and 42 percent, respectively, indicating that railroads aren't just resting on past laurels.
- America's railroads today have lower employee injury rates than most other major industries, **including trucking, inland water transportation, airlines, agriculture, mining, manufacturing, and construction** — even lower than food stores.



Working to Ensure That Rail Safety Continues to Improve

Railroads devote enormous resources in a multi-pronged strategy to help ensure that rail safety continues to improve:

- In recent years, America's freight railroads have been **reinvesting more than ever before — including more than \$25 billion in 2012 and in 2013 — on infrastructure and equipment.** The more they reinvest, the safer they become.
- Railroads are constantly incorporating **new technologies** to improve rail safety, including **sophisticated detectors** along tracks that identify defects on passing rail cars and **specialized inspection cars** that identify defects in tracks. Many technological advancements are developed at the Transportation Technology Center, Inc. in Pueblo, Colorado, a subsidiary of the Association of American Railroads that is widely considered to be the finest rail research facility in the world.

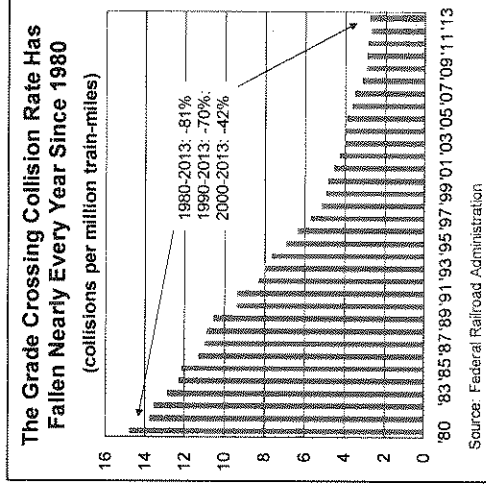


- **Virtually every aspect of rail operations is subject to oversight by the FRA.** Among many other areas, railroads are subject to stringent FRA regulation regarding track and equipment inspections; employee certification; operating speeds; and signaling systems. FRA safety inspectors travel the country evaluating rail facilities and operations. In many states, FRA inspectors are supplemented by state inspectors. Railroads are also subject to safety oversight by a number of other federal agencies, including the Occupational Safety and Health Administration (OSHA), the Pipeline and Hazardous Materials Safety Administration (PHMSA), and the Department of Homeland Security (DHS).

Improving Safety at Grade Crossings and on Railroad Property

Collisions at grade crossings, along with incidents involving trespassers on railroad rights-of-way, are critical safety problems, typically accounting for around 95 percent of rail-related fatalities. Although these incidents usually arise from factors that are largely outside of railroad control, railroads are committed to reducing their frequency.

- From 1980 through 2013, grade crossing **collisions fell 80 percent**, grade crossing **injuries fell 76 percent**, and grade crossing **fatalities fell 70 percent.** Since 2000, the reductions have been 40 percent, 22 percent, and 41 percent, respectively, indicating that grade crossing safety continues to improve. The grade crossing collision rate — defined as collisions per million train-miles — fell 81 percent from 1980 through 2013. It has fallen nearly every year since 1978.



- This huge improvement is due in part to the federal **Section 130 program**, which allocates more than \$200 million per year to states for grade crossing improvements.
- Railroads themselves spend **hundreds of millions of dollars each year** on grade crossing improvements and maintenance. They also work with local authorities to close unneeded or redundant grade crossings.
- Intensive education efforts by railroads, working with state and local law enforcement officials and others (especially **Operation Lifesaver**), have improved public awareness about safe behavior around grade crossings and on railroad property.
- It is an unfortunate reality that too many people use railroad property for short cuts, recreation, or other inappropriate purposes, sometimes with tragic results. Railroads are engaged in ongoing efforts with Operation Lifesaver and others to educate the public that, for their own safety, they should stay off rail property.

Moving Hazardous Materials Safely

U.S. railroads transport approximately two million carloads of hazardous materials each year, including around 77,000 carloads of “toxic inhalation hazard” (TIH) materials. Railroads are the safest mode for transporting hazardous materials.

- In 2012, **99.998 percent** of rail hazmat shipments reached their destination without a release caused by a train accident. Rail hazmat accident rates are **down 91 percent since 1980, down 51 percent since 1990, and down 36 percent since 2000**.
- Steps railroads take to enhance rail safety in general, including those outlined above, also enhance the safety of hazmat transportation, but railroads also have long been taking concrete steps to make hazmat transportation safer. Just a few examples:
 - ✓ Railroads and a number of federal agencies have jointly developed the **Rail Corridor Risk Management System (RCRMS)**, a sophisticated statistical routing model designed to aid railroads in analyzing and identifying the overall safest and most secure rail routes. The model is currently used to analyze routes for TIH materials and crude oil.
 - ✓ Around half of all hazardous materials, and nearly all TIH materials, are transported in tank cars. Tank cars built today are vastly improved over earlier generations of tank cars, with higher grade steel, better thermal protection, improved valves and fittings, often thicker tanks, and many other improvements. The rail industry has called on PHMSA, which sets federal regulations pertaining to tank cars, to **upgrade standards for new tank cars** and to require existing tank cars used to transport flammable liquids, including crude oil and ethanol, to **be retrofitted with enhanced safety features** or, if no upgrades are made, aggressively phased out.
 - ✓ **All major railroads have teams devoted to emergency response** and maintain networks of hazmat response contractors and environmental consultants, located throughout their service areas, on call 24/7. Railroads also work closely with state and local emergency first responders. In fact, each year, **railroads provide training to more than 20,000 emergency responders** throughout the country.

